

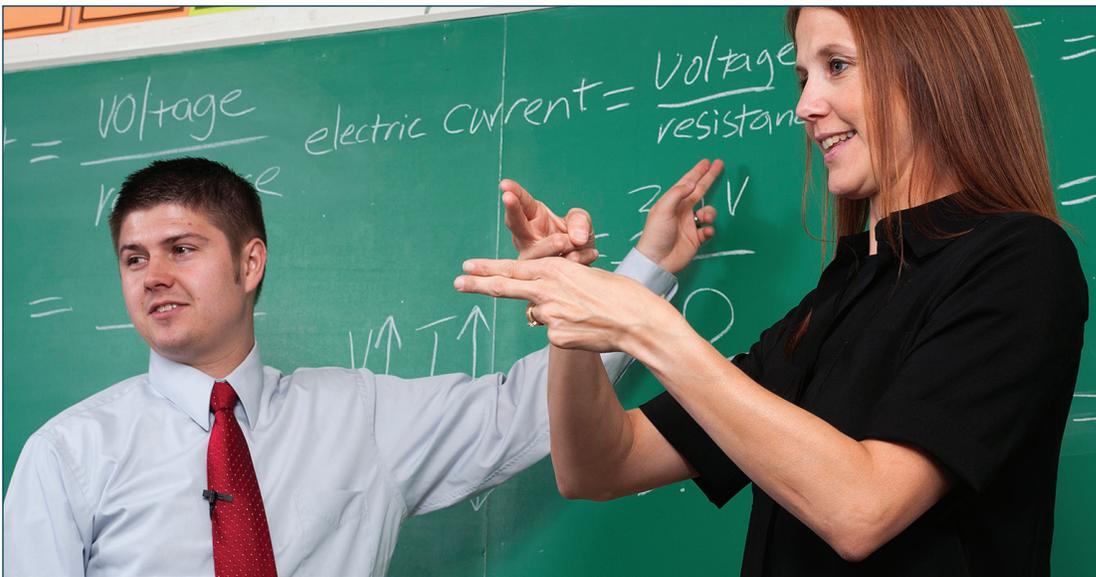
A Guide for INTERPRETERS

Working with Students Who Use Cochlear Implants

Authors:

Brenda Schick, PhD
Frances J. Beaurivage
Catherine Carotta, EdD

This guide provides information for interpreters when using differentiated interpreting practices.



Advances in the auditory benefits that deaf students with cochlear implants receive have raised questions about how educational interpreters will work with those students.

Educational interpreters may be challenged by the unique needs of deaf students with cochlear implants. In some ways interpreting is the same, but in other ways it can be very different. This guide is directed specifically at educational interpreters. Its purpose is to explain how important it is for interpreters to work with educational teams, to explore interpreting strategies, and to gain skills in many domains that might be useful given that the needs of students with cochlear implants can vary significantly. It presumes that many individuals on an educational team can work with the interpreter to identify what is needed to help students with cochlear implants become proficient in visual and/or spoken language skills.

There are a few major premises that are essential when working with students with cochlear implants. First, research shows that early access to language—spoken or signed—is best for all children, but it should be a full language. The educational team (including speech-language pathologists, the teacher of the deaf, and the audiologist) typically assesses all uses of language, including a range of modalities and gesture systems. Next, the decision to implant a child is ultimately a matter of family choice as they work with professionals to

understand potential outcomes. The educational team works in the context of this family choice. The interpreter is part of this constellation supporting the family, the educational team, and the student. Finally, many students with cochlear implants use a range of communication modalities and sources of information. These may include sign language, visual cues, graphics, and print. They may also include spoken language, vocal features, and auditory information such as spoken English, tone of voice, and environmental sounds. Many professionals refer to this as the “auditory to visual continuum.” All individuals have preferences for how they best learn. For a student with a cochlear implant, visual information may supplement auditory information and vice versa. Students with cochlear implants may demonstrate a variety of learning preferences anywhere on this continuum depending on the type of information and the setting.

Children change over time, and their learning needs are discovered as they mature. With all students, there is a need for flexibility in whatever approach or strategies are used to address their changing needs. In the case of students with cochlear implants, the use of auditory and visual in-



formation to access the academic environment is something that develops over time as they become increasingly experienced with using the cochlear implants and developing auditory skills. As students develop over time during their preschool through high school years, the interpreter's role in providing support will shift.

A cochlear implant is a medical device that uses electrodes to stimulate the auditory nerve and generate a representation of sound. However, it does not restore normal hearing. When an individual receives a cochlear implant, his or her brain needs to develop the skills to make sense of what he or she is perceiving. Some students enter school still in a period of developing these skills. An interpreter may be part of the educational team that will assist in this development.

While cochlear implants can provide auditory access to sound, not all students have the same level of auditory access and understanding of spoken language. There are many factors that have the potential to impact a student's communication preferences and access to the auditory environment.

Some students may use their cochlear implants to alert them to environmental sounds but still need full sign language support to understand classroom discourse because they have limited auditory access and cannot understand spoken English. Other students may be able to express themselves using spoken language but

may require key words, signs, or speechreading in order to fully comprehend spoken language. And still other students may fully comprehend all of spoken communication and rely primarily on speechreading or the printed word to support their learning. Since the population of students using cochlear implants is so diverse, highly differentiated interpreting practices are needed in order to meet the individual needs of the students.

The interpreter needs to have a clear understanding of the student's ability to access and use spoken English and/or sign language as well as the educational team's goals for the student. Key information about the student's learning preferences can be found in assessments that identify his or her speech perception skills, speech-language abilities, sign language skills, and academic levels of functioning. Interpreters should review this information with the educational team. Observation of the student during social and instructional settings can provide good information about how the student wishes to naturally interact in the environment. For example, students may wish to use interpreters in the classroom, but they may not want or need to use interpreters in social settings. Preferences for how auditory and visual information will be used can be identified as part of the student's Individualized Education Program (IEP). It is important to engage the student in conversation regarding his or her auditory and visual learning preferences, especially as he or she gets older.

Whether a student needs an interpreter or can manage without one may vary according to the content of the communication. If the concepts and vocabulary are new or complex, some students may need visual support even if they do not need support when the language is less academic. Needs for interpreting support can also vary by social or academic context. It is essential for educational teams to discuss content and context in relation to the student's ability to use and understand spoken language or sign language.

Differentiated Interpreting Practices

The "one-size-fits-all" approach does not fit every student who is deaf or hard of hearing regardless of if assistive listening technology, hearing aids, or cochlear implants are used. Resources that can be utilized when discussing and planning for interpreting services include the Clerc Center and Boston Children's Hospital's *Students with Cochlear Implants: Guidelines for Educational Program*

Cochlear implants provide many implanted deaf students with access to sound to the extent that they can understand spoken English without an interpreter. However, students using cochlear implants range in their abilities to understand spoken language due to a variety of factors:

- age of onset of hearing loss
- spoken and sign language skills prior to implantation
- age at cochlear implantation
- frequency of use of the cochlear implant
- use of accessible language in the home environment (spoken and/or signed)
- access to a high-quality early intervention program
- educational environment
- hearing and speech skills prior to implantation
- sophistication of the cochlear implant technology
- structure of the cochlea or function of the auditory nerve
- appropriate fitting/programming of the cochlear implant sound processor
- presence of learning or intellectual challenges

Planning and Boys Town National Research Hospital's *Interpreter Communication Plan*. You can find links to these resources on the Clerc Center's Interpreter Guides web page.

Differentiated interpreting may require a discussion of what visual and spoken language will be used. Context and situations should result in discussions related to how interpreting may vary according to changing needs throughout the day and school year. This may include discussions of what language to use; when simultaneous versus sequential interpreting should be implemented; when, how, and what type of visual supports should be offered; and whether or not the student needs interpreting in a particular situation. It's important to remember that more may not always be better. Some students may need to focus on the spoken message first; other students may need to see visual language before they can make sense of the auditory information. The goal is a goodness-of-fit between what the student needs and what the interpreter provides. The interpreter's goal is to adjust practices by determining the student's learning preferences or needs and provide the appropriate support. This is achieved when interpreters engage in ongoing task analysis to understand what the student needs or prefers as the classroom and social situations change.

Guidelines for Differentiated Interpreting Practices

Acoustic environment. Maintaining an appropriate acoustic environment will aid the student with comprehension of spoken information. The interpreter can assist the student with being able to identify and report when classroom noise or acoustics are interfering with optimal auditory access. The interpreter can provide the student with examples of how he or she might handle or resolve the auditory distractions. For example, if the class is doing small group work and the conversations are making it difficult for the student to hear peers, the student might ask the teacher if the group could move to another room or further away from the other groups. The responsibility for maintaining an appropriate acoustic environment lies with school administration. There are educational team members (e.g., educational audiologist, teacher of the deaf) who can assist.

Device technology. The interpreter may be responsible for checking the student's technology on a daily basis to ensure it is working as well as

for reporting problems. If the device is not working, the interpreter may need to provide full interpreting support when the student doesn't have sufficient auditory access. An educational audiologist can provide information on how to check hearing devices.

Visual environment. Establishing a supportive visual environment is also important. Some students use speechreading in addition to looking at the interpreter to enhance their understanding of the spoken message. Therefore, it is important that the instructor and interpreter both be visible to the student. Consideration should also be given to the impact that competing light sources or visually distracting backgrounds have on the student's speechreading and understanding interpreted information (e.g., moving back and forth in front of the illuminated SMART board will introduce competing and inconsistent visual access to the spoken and signed message).

Mixed methods of communication. Some students with cochlear implants use spoken language to express themselves and sign language to understand the spoken message. When students use mixed methods of communication, one method may be more developed. In many cases students with cochlear implants have more developed spoken language skills than sign language skills. An interpreter may need to familiarize a student with basic signs if directed by the educational team.

For those students who have a high level of auditory comprehension, a single sign or written/fingerspelled word may be all that is needed to help them comprehend a new or difficult-to-understand concept.

For students with cochlear implants who are highly successful in understanding spoken English, consideration should be given to how the student prefers information to be presented. There may be times when the student prefers to listen to the speaker first and then look to the interpreter to confirm if what he or she heard was accurate. This allows students the option to check their own listening comprehension and to build confidence in their hearing ability. With increasing self-knowledge about how much visual support is needed to understand the content, students can advise interpreters regarding when and how much visual support they need to access the content.

Type of sign language. The type of sign language to be used by the student should be writ-



Brenda Schick, PhD, a professor at the University of Colorado-Boulder, studies the development of spoken and sign language and its relationship to cognition in children who are deaf or hard of hearing. She has had three National Institutes of Health grants investigating language and/or cognitive development in children who are deaf or hard of hearing, including Theory of Mind. Each grant required data collection across the nation and the development of language assessment tools for American Sign Language (ASL). Schick is currently a member of a research center that focuses on literacy and young deaf and hard of hearing children. She has also served as the school board president for an ASL/English school for children who are deaf or hard of hearing and is a former teacher of the deaf.

Frances J. Beurivage is employed in dual roles at the Boys Town National Research Hospital in Omaha, Neb. As their sign communication and curriculum specialist, she provides Boys Town's Center for Childhood Deafness, Language, and Learning with clinical support for language/academic/social assessments of deaf and hard of hearing children. As manager of the Educational Interpreter Performance Assessment (EIPA) Diagnostic Center, she travels nationally to present to audiences information about the EIPA and provides skills training workshops for interpreters working in K-12 educational settings. Beurivage holds CI/CT certification from the National Registry of Interpreters for the Deaf.

Catherine Carotta, EdD, is the associate director of the Center for Childhood Deafness at Boys Town National Research Hospital in Omaha, Neb. She is a licensed speech-language pathologist with many years of experience in the assessment and education of children who are deaf or hard of hearing using sign and spoken language modalities. Carotta has worked in public/private school settings, hospitals, and university-based clinical programs. She has worked with children with cochlear implants since 1985; she first served as a speech-language pathologist on Indiana University's cochlear implant team. Currently, Carotta serves as a national consultant to school districts focused on providing best educational practices for deaf and hard of hearing students. With a doctorate in leadership education, she has actively worked to create learning organizations using current leadership models.

This guide was developed in collaboration with staff in the Center for Childhood Deafness at Boys Town National Research Hospital.

ten into the IEP. Many students with cochlear implants will need sign language that aligns with English rather than American Sign Language. Should the specified system or language not meet the student's need even after the interpreter makes modifications to clarify or support comprehension, this information should be shared with the educational team.

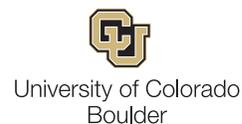
Visual support. Learning and keeping pace with academic content is a complex task for students who are deaf or hard of hearing in general education classrooms. A variety of forms of visual support may be used in classrooms in addition to interpreting. The interpreter may support the student by pointing to print, pictures, charts, or overhead material. This will aid students in following the flow of classroom discourse. Pointing to the teacher's outline on the overhead, providing vocabulary terms on the whiteboard, or pointing to visuals in the student's textbook highlights key concepts that assist the student in following the classroom discussion.

Visual orientation. When visual or auditory orientation/access to the entire classroom is not available or optimal, the interpreter may need to visually orient the student to who is speaking, especially during fast-paced classroom interchanges. Pointing in the speaker's direction or indicating the speaker's gender, color of clothing, or name are strategies that can be implemented to ensure access.

Cues. Many students who are deaf or hard of hearing may experience auditory and visual fatigue due to the amount of concentration it takes to access the environment. This may be especially true for a student with a cochlear implant who is receiving both spoken English and sign language. The interpreter can help prioritize essential listening times by helping students focus attention on the most important information. One possible strategy is for the interpreter to develop cues that identify when the teacher is starting a lesson so the student knows when he or she needs to attend again. This is a different way to think about interpreting—not just how to interpret but what to interpret.

Conclusion

An interpreter who works with students with cochlear implants needs to work with the educational teams to understand each student's auditory access, use of spoken English, use of sign language, and the educational goals surrounding the use of spoken and signed language. Most interpreters will need further training and assistance in order to scaffold a student's development of listening and spoken English skills. When working with students with cochlear implants, it is essential for interpreters to build collaborative relationships with speech-language pathologists, audiologists, mainstream teachers, and teachers of the deaf to achieve optimal outcomes.



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